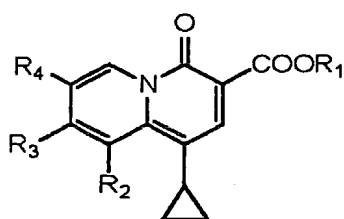


## Abstract

The present invention provides a 4-oxoquinolizine antibacterial agent having a 2-pyridone skeleton as a partial structure and also having a strong antibacterial effect on gram-positive bacteria, gram-negative bacteria or anaerobic bacteria. The compound having the following formula (I) or a pharmaceutically acceptable salt thereof:



(I)

wherein:

$R_1$  represents hydrogen atom or a carboxyl-protecting group,

$R_2$  represents hydrogen atom, a halogen atom, a lower alkyl group, a lower alkoxy group or hydroxyl group,

$R_3$  represents phenyl group or an aromatic substituent selected from the group consisting of 5-membered and 6-membered heterocyclic groups and  $R_3$  has a substituent selected from the group consisting of a hydrogen atom, a lower alkyl group, a lower alkoxy group, a nitro group, a cyano group, an amino group, an acyl group, a carbamoyl group and a ureido group, and

$R_4$  represents a hydrogen atom or a halogen atom.